**Assignment -2**

1. What are the two values of the Boolean data type? How do you write them?

**Answer: -**

The two values of the Boolean data type are True (1) and False (0). We can write then by True and False that is the first letter is Capita and the rest of the word is in lowercase.

2. What are the three different types of Boolean operators?

**Answer: -**

The three different types of Boolean operators are **and, or, not.**

3. Make a list of each Boolean operator's truth tables (i.e. every possible combination of Boolean values for the operator and what it evaluate ).

**Answer: -**

|  |  |  |  |
| --- | --- | --- | --- |
| True | and | True | True |
| True | And | False | False |
| False | And | True | False |
| False | And | False | False |
| True | Or | True | True |
| True | Or | False | True |
| False | Or | True | True |
| False | Or | False | False |
| Not True |  |  | False |
| Not False |  |  | True |

4. What are the values of the following expressions?

**Answer: -**

(5 > 4) and (3 == 5) False

not (5 > 4) False

(5 > 4) or (3 == 5) True

not ((5 > 4) or (3 == 5)) False

(True and True) and (True == False) False

(not False) or (not True) True

5. What are the six comparison operators?

**Answer: -**

The six comparison operators are ==, ! =, <=, >=, < and >

6. How do you tell the difference between the equal to and assignment operators? Describe a condition and when you would use one.

**Answer: -**

In case of equal to == is used and = is used as assignment operator. The == operator is used when comparing two values where as = is used when a value is assigned to a variable.

7. Identify the three blocks in this code:

spam = 0

if spam == 10:

print('eggs')

if spam > 5:

print('bacon')

else:

print('ham')

print('spam')

print('spam')

**Answer: -**

|  |  |  |
| --- | --- | --- |
| Block -1 | Block -2 | Block -3 |
| spam = 0  if spam == 10:  print('eggs')  if spam > 5:  print('bacon')  else:  print('ham') | print('spam') | print('spam') |

8. Write code that prints Hello if 1 is stored in spam, prints Howdy if 2 is stored in spam, and prints Greetings! if anything else is stored in spam.

**Answer: -**

If span == 1:

print(‘Hello’)

elif span ==2:

print(‘Howdy’)

else:

print(‘Greetings’)

9. If your programme is stuck in an endless loop, what keys you’ll press?

**Answer: -**

Press the CTRL + C to stop the endless loop.

10. How can you tell the difference between break and continue?

**Answer: -**

The break statement stops the loop and moves the execution just after the loop. The continue statement move the execution to the start of the current loop.

11. In a for loop, what is the difference between range(10), range(0, 10), and range(0, 10, 1)?

**Answer: -**

range(10) – call the range from 0 to 10 excluding 10.

range(0,10) – call the range starting from 0 and ending at 10 excluding 10.

range(0,10,1) – call the range starting from 0 and ending at 10 excluding 10 but explicitly increase the value of the variable by 1.

Actually all the three have the same meaning.

12. Write a short program that prints the numbers 1 to 10 using a for loop. Then write an equivalent program that prints the numbers 1 to 10 using a while loop.

**Answer: -**

|  |  |
| --- | --- |
| Printing 1 to 10 using for loop | Printing 1 to 10 using while loop |
| for i in range(0,1,11):  print i | i = 1  while i <=10:  print i  i = i + 1 |

13. If you had a function named bacon() inside a module named spam, how would you call it after importing spam?

**Answer: -**

The function bacon() is called by writing the module\_name.function\_name() that is span.bacon().